Skinner and Mr. Fox for examining Cresson's type of *N. depressa*, and reporting the characters given above. All these insects have simple mandibles; Mr. Viereck kindly examined Cresson's type of *depressa* in respect to its mandibles some years ago.

*N. depressicauda* agrees with the description of *hoodiana* (Proc. Phila. Acad., 1903, p. 608) in practically every character except those given in the table. The third submarginal cell, however, is less narrowed above.

*N. skinneri* is quite a dark insect, with the middle of face and front (not involving the clypeus) black; flagellum strongly dusky, but clear red at extreme apex; third antennal joint a little shorter than fourth; second abdominal segment with a large yellow mark on each side, third with yellow dots; apical and basal margins of the segments infuscated; pygidial plate broad, but not so broad at apex as that of *N. depressiuscula*; basal nervure going a moderate distance basad of t. m.

The type has the upper half of the second transverso-cubital wanting on both side.

# Numerical Distribution of Some Insects.

By Owen Shoemaker Paxson, Devon, Pa.

The following notes were compiled during the summer of 1905, excepting in a very few instances as stated. In recording them, I walked a mile and a quarter from home to a small pond and back again over the same route. Thus day after day I confined myself almost exclusively to this ground. It consisted of about one-quarter mile of macadamized roads, five-eighths of untilled fields and one-eighth of plowed land in corn, one-quarter in woods and the usual surroundings of a small pond on the edge of a copse.

I think the scarcity of some species in my list is alone accountable by the fact of their comparative or almost total seclusion in nature. The Coleoptera are represented so well on account of the fact that they are my favorite order, and consequently were pursued more closely and continuously. Even here, however, there are many instances where their ways or surroundings have caused scanty records. The abundance in the Lepidoptera and Hymenoptera is explained by their prominent positions in the fields or woods, and the great ease in quickly and accurately distinguishing them. Many times the present number of species could have been tabulated, if I had been able to recognize them in their quick ways. Quantities were seen only for an instant or in the distance, and so lost forever.

In the succeeding pages such words as "several" and "numerous" are continually used. I explain their meaning so as to allow others to form a definite idea of the numerical superiority of some species over others. The first mentioned word will represent quantities of from four to twelve, while the latter will signify that the number of specimens ranged from thirteen upward.

## COLEOPTERA.

*Adalia bipunctata.*—V, 17, three; V, 28, one; VI, 5, two, male and female, cop.; VI, 16, one; VIII, 11, do.

*Anomoea laticlavia.*—VI, 8, one; VII, 7, do.

*Anthrenus scrophulariae.*—V, 8, one; V, 10, two; V, 11, one; V, 13, two; V, 15, one; V, 16, do.

*Aphodius inquinatus.*—IV, 4, 1906, numerous.

*Aphodius fossor.*—IV, 25, one.

*Attagenus piceus.*—V, 28. one; VI, 5, three; VI, 11, one; VI, 13, do.

*Calopteron reticulatum.*—V, 29, one; VI, 1, do.; VI, 2, three; VI, 3. two; VI, 5, several; VI, 8, two; VI. 10, one; VI. 13, do.; VI, 16, do.; VII, 3, do.

*Chauliognathus pennsylvanicus.*—VI, 16, two, male and female; VI, 24, several, male and female, cop.; VI, 27, two; VII, 7, several; VIII, 19, one; VIII, 26, numerous, male and female, cop.; VIII, 31, do.; IX, 1, do.; IX, 3, do.; IX, 7, do.; IX, 8, numerous; IX, 12, numerous, male and female, cop.; IX, 18, do.; IX., 21, do.; IX, 23, do.; IX, 29, do.

*Chelymorpha argus.*—IV, 25, one; VI, 2, do.

*Chlaenius aestivus.*—VI, 9, one.

*Chrysochus auratus.*—VI, 24, one; VII, 14, several.

*Chrysomela similis.*—IV, 25, one; V, 16, do.

*Cicindela sexguttata.*—IV, 20, three; IV, 25, several; IV, 26, numerous; IV, 30, do.; V, 2, do.; V, 3, several; V, 7, numerous; V, 16, two; V, 21, several; V, 23, do.; V, 27, do.; V, 28, do.; V, 29, do.; VI, 2, do.; VI, 3, three; VI, 4, do.; VI, 5, numerous; VI, 6, several; VI, 9, one; VI, 10, two; VI, 14, several; VI, 15, two; VI, 16, one; VI, 17, do.; VI, 18, do.; VI, 21, two, male and female, cop.; VI, 22, one; VI, 28, two; VII, 5, one; VII, 17, do.

*Cicindela punctulata.*—VI, 25, one; VI, 27, do.; VI, 28, several; VII, 3, do.; VII, 4, numerous; VII, 5, do.; VII, 6, several; VII, 7, do.; VII, 12, numerous; VII, 14, several; VII, 15, numerous; VII, 17, do.; VII, 24, do.; VII, 27, do.; VIII, 4, several; VIII, 8, do.; VIII, 10, do.; VIII, 11, three; VIII, 14, do.; VIII, 17, several; VIII, 19, do.; VIII, 21, do.; VIII, 23, one; VIII, 26, three; VIII, 31, several; IX, 1, numerous; IX, 3, several, male and female, cop.; IX, 7, one; IX, 12, several; IX, 23, do.; IX, 26, numerous.

*Crioceris asparagi.*—V, 15, numerous, male and female; VI, 10, several; VI, 13, two; VI, 14, several; VI, 16, do.

*Coccinella novemnotata.*—V, 16, one; V, 19, several; V, 28, one; VI, 5, two, male and female, cop.; VI, 10, one; VI, 21, do.; VI, 24, do.; VII, 6, do.; VII, 7, two; VII, 15, one; VIII, 26, do.

*Coccinella sanguinea.*—VI, 24, one.

*Desmocerus palliatus.*—VII, 3, one.

*Diabrotica vittata.*—VI, 5, three, male and female; VI, 10, one.

*Doryphora clivicollis.*—VIII, 11, one.

*Doryphora decemlineata.*—V, 18, numerous; V, 29, several; VI, 1, two, male and female; VI, 2, one; VI, 10, several, male and female; VI, 13, numerous; VI, 28, do.

*Elaphrus ruscarius.*—V, 2, one.

*Ellychnia corrusca.*—IV, 25, one; V, 3, do.; V, 6, do.; V, 16, two; VI, 16, one.

*Epicauta pennsylvanica*—VIII, 11, numerous; VIII, 19, three; VIII, 21, several; VIII, 26, do.; VIII, 31, numerous; IX, 1, do.; IX, 3, do.; IX, 7, two.; IX, 8, numerous; IX, 12, numerous, male and female, cop.; IX, 23, two; IX, 26, one.

*Euphoria inda.*—IV, 9, one.

*Gyrinus sinuatus.*—IV, 27, numerous (seen often before); V, 28, numerous; VIII, 17, do.; VIII, 23, do.; IX, 1, do.; IX, 12, do.; IX, 18, do.; IX, 21, do.; IX, 23, do.; IX, 26, do.

*Harpalus caliginosus.*—IX, 3, several; IX, 6, do.; IX, 7, three; IX, 8, two, male and female, cop.

*Hippodamia parenthesis.*—VI, 5, one; VI, 29, do.

*Hister abbreviatus.*—IV, 30, several.

*Hister americanus.*—IV, 30, several.

*Lachnosterna fusca.*—IV, 28, numerous; IV, 30, one; V, 6, numerous; V, 8, two; V, 10, several; V, 13, numerous; V, 14, do.; V, 15, do.

*Leistotrophus cingulatus.*—IV, 25, one; V, 3, numerous, male and female; V, 7, do.; VI, 24, one.

*Limonius griseus.*—IV, 30, one.

*Macrodactylus subspinosus.*—VI, 2, one; VI, 3, three, male and female; VI, 6, several, male and female; VI, 9, three, male and female; VI, 10, several, male and female; VI, 11, three; VI, 13, several, male and female, cop.; VI, 14, do.; VI, 16, one; VI, 17, do.; VI, 19, several; VI, 22, several, male and female; VI, 23, do.; VI, 24, numerous, male and female, cop.; VI, 28, do.

*Megilla maculata.*—V, 6, two; V, 7, several; VI, 21, one; VII, 6, three; VII, 7, two.

*Melanactes piceus.*—VI, 5, one.

*Oodes amaroides.*—VI, 13, one.

*Photuris pennsylvanica.*—VI, 9, one; VI, 10, do.; VI, 22, two; VI, 23, one; VI, 24, do.; VI, 28, do.; VII, 3, two; VII, 7, three.

*Photinus marginellus.*—VI, 6, numerous; VI, 10, do.

*Pterostichus lucublandus.*—V, 29, one; VI, 5, do.

*Pterostichus stygicus.*—IV, 14, 1906, one.

*Scarites subterraneus.*—VI, 15, one; VI, 17, do.

*Silpha americana.*—VII, 6, one, male.

*Silpha inaequalis.*—V, 3, numerous, male and female; V, 7, several, male and female.

*Silpha noveboracensis.*—VII, 6, several.

*Telephorus carolinus.*—V. 30, several; VI, 1, numerous; VI, 4, do.; VI, 6, do.; VI, 8, do.; VI, 9, do.; VI, 10, do.; VI, 11, two; VI, 13, three; VI, 16, do.; VI, 24, two; VI, 28, one.

*Tenebrio tenebrioides.*—VI, 28, two.

*Tetraopes tetraophthalmus.*—VI, 23, one; VI, 24, several; VI, 25, several, male and female, cop.; VI, 27, two; VI, 28, several, male and female, cop.; VII, 7, numerous, male and female, cop.; VII, 14, two; VII, 15, do.; VII, 27, several, male and female, cop.; VIII, 1, three, male and female, cop.; VIII, 4, two; VIII, 14, do.

*Thecasternus humeralis.*—VI, 16, one.

## ORTHOPTERA.

*Dissosteira carolina.*—VII, 11, three; VII, 12, several; VII, 14, do.; VII, 15, do.; VII, 17, do.; VII, 24, numerous; VII, 27, several; VIII, 1, do.; VIII, 4, numerous; VIII, 8, several; VIII, 10, do.; VIII, 11, numerous; VIII, 14, several; VIII, 17, do.; VIII, 19, numerous; VIII, 21, several; VIII, 23, numerous; VIII, 26, do.; VIII, 31, several; IX, 1, numerous; male and female, cop.; IX, 3, several; IX, 7, two; IX, 8, several; IX, 12, do.; IX, 18, numerous; IX, 21, do.; IX, 23, do.; IX, 29, do.

*Gryllus pennsylvanicus.*—V, 28, two; VIII, 17, do.; VIII, 19, do.; VIII, 26, do.; VIII, 31, several; IX, 1, three; IX, 3, do.; IX, 7, two; IX, 8, one; IX, 12, numerous; IX, 18, do.; IX, 21, do.; IX, 23, do.; IX, 29, do.

*Melanoplus femoratus.*—VIII, 21, two.

*Melanoplus femur-rubrum.*—VIII, 21, numerous; VIII, 26, do.; VIII, 31, do.; IX, 1, do.; IX, 3, do.; IX 7, do.; IX, 8, do.; IX, 12, do.; IX, 18, do.; IX, 21, do.; IX, 23, do.; IX, 26, do.; IX, 29, do.

*Nemobius fasciatus.*—VII, 13, three; VII, 14, several; VII, 27, numerous; VIII, 19, do.; VIII, 23, do.; VIII, 26, do.; VIII, 31, do.; IX, 1, do.; IX, 3, do.; IX, 7, do.; IX, 8, do.; IX, 12, do.; IX, 18, do.; IX, 21, do.; IX, 23, do.; IX, 29, do.

*Scudderia curvicauda.*—VIII, 17, two; VIII, 19, one; VIII, 21, two; VIII, 23, three; VIII, 26, two; VIII, 31, three; IX, 1, one; IX, 8, several; IX, 12, two; IX, 23, one; IX, 26, three.

## LEPIDOPTERA RHOPALOCERA.

*Argynnis cybele.*—VI, 4, several; VI, 5, two; VI, 9, do.; VI, 10, several; VI, 11, one; VI, 13, three; VI, 14, numerous; VI, 15, several; VI, 16, numerous; VI, 17, several; VI, 18, do.; VI, 19, do.; VI, 21, do.; VI, 22, do.; VI, 23, do.; VI. 24, do.; VI, 27, three; VI, 28, numerous; VII, 3, several; VII, 4, three; VII, 5, do.; VII, 6, two; VII, 7, three; VII, 12, two; VII, 14, several; VII, 15, three; VII, 17, one; VII, 24, two; VIII, 1, one; VIII, 4, do.; VIII, 11, do.; VIII, 17, three; VIII, 19, do.; VIII, 21, one; VIII, 23, several; VIII, 26, two; VIII, 31, several; IX, 1, three; IX, 3, two; IX, 7, one; IX, 8, several; IX, 12, do.; IX, 18, one; IX, 21, do.; IX, 23, two; IX, 29, several.

*Argynnis idalia.*—VI, 13, one male; VI, 15, do.; VI, 17, one; VI, 18, do.; VI, 19, several; VI, 21, do.; VI, 22, several, male and female; VI, 23, several; VI, 24, one; VI, 25, numerous; VI, 27, do.; VI, 28, do.; VII, 3, do.; VII, 4, several; VII, 5, do.; VII, 6, several, male and female; VII, 7, do.; VII, 12, two; VII, 14, several; VII, 15, do.; VII, 17, do.; VII, 24, three; VII, 27, one; VIII, 1, do.; VIII, 11, two; VIII, 17, one; VIII, 19, several; VIII, 23, do.; VIII, 26, do.; VIII, 31, one; IX, 1, two; IX, 3, several; IX, 7, two; IX, 8, several; IX, 12, two; IX, 18, one; IX, 21, two; IX, 23, one; IX, 29, three.

*Argynnis myrina.*—VI, 6, two; VI, 16, do.; VI, 19, several; VI, 21, one; VII, 14, do.; VII, 24, two; VII, 27, do.; VIII, 1, one; VIII, 4, do.; VIII, 31, two; IX, 1, do.; IX, 3, several; IX, 18, two; IX, 21, three.

*Chrysophanus hypophlaeas.*—V, 19, one; VI, 24, do.; VI, 25, do.; VI, 27, several; VI, 28, numerous; VII, 3, two; VII, 4, several; VII, 6, three; VII, 7, several; VII, 12, do.; VII, 14, two; VII, 15, numerous; VIII, 14, one; VIII, 17, two; VIII, 19, several; VIII, 21, two; VIII, 26, do.

*Colias philodice.*—IV, 25, one; IV, 26, do.; IV, 28, two; IV, 30, three; V, 2, several; V, 3, one; V, 6, two; V, 7, numerous; V, 11, several; V, 15, numerous; V, 16, do.; V, 21, three; V, 23, do.; V, 27, do.; V, 28, numerous; V, 29, several; VI, 2, do.; VI, 3, two; VI, 5, several; VI, 6, do.; VI, 8, two; VI, 9, one; VI, 10, several, female; VI, 11, three; VI, 14, two; VI, 15, do.; VI, 16, do.; VI, 17, several; VI, 18, two; VI, 19, do.; VI, 21, numerous; VI, 22, do.; VI, 23, do.; VI, 24, several; VI, 25, numerous; VI, 27, do.; VI, 28, do.; VII, 3, numerous, male and female; VII, 4, numerous; VII, 5, do.; VII, 6, do.; VII, 7, do.; VII, 12, do.; VII, 14, do.; VII, 15, do.; VII, 24, several; VII, 27, do.; VIII, 1, do.; VIII, 4, numerous; VIII, 8, do.; VIII, 10, several; VIII, 11, numerous; VIII, 14, several; VIII, 17, numerous; VIII, 19, do.; VIII, 21, do.; VIII, 23, do.; VIII, 26, do.; VIII, 31, several; IX, 1, numerous; IX, 3, do.; IX, 7, numerous, male and female, cop.; IX, 8, numerous; IX, 12, do.; IX, 18, do.; IX, 21, do.; IX, 23, do.; IX, 29, do.

*Danais plexippus.*—V, 11, one; V, 18, do.; V, 19, do.; V, 28, do.; VI, 2, two; VI, 5, one; VI, 13, do.; VI, 14, do.; VI, 16, do.; VI, 17, three; VI, 19, one; VI, 23, two; VI, 25, one; VI, 27, three, male and female, cop.; VI, 28, two; VII, 3, one; VII, 6, three; VII, 7, several; VII, 12, do.; VII, 14, do.; VII, 15, one; VII, 24, two; VII, 27, do.; VIII, 11, do.; VIII, 21, one; VIII, 31, do.; IX, 3, two males; IX, 7, three; IX, 8, several; IX, 12, do.; IX, 18, two; IX, 21, do.; IX, 23, one; IX, 29, two.

*Eudamus pylades.*—IV, 30, two; VI, 2, several; VI, 5, one; VI, 6, two, male and female; VI, 8, one; VI, 10, do.; VI, 11, several; VI, 13, three; VI, 14, one; VI, 15, several; VI, 16, do.; VI, 18, one; VI, 21, three; VI, 22, two; VI, 23, do.; VI, 24, do.; VI, 28, do.; VII, 3, one.

*Eudamus tityrus.*—V, 13, one; V, 14, do.; V, 15, three; V, 27, one; V, 28, two; V, 29, several; VI, 2, do.; VI, 4, two; VI, 5, several; VI, 6, three; VI, 8, several; VI, 9, two; VI, 10, one; VI, 13, three; VI, 14, two; VI, 15, do.; VI, 16, three; VI, 17, one; VI, 18, two; VI, 19, three; VI, 21, two; VI, 22, several; VI, 23, one; VI, 25, three; VI, 27, one; VI, 28, several; VII, 3, two; VII, 12, do.; VII, 14, several; VII, 15, two; VII, 24, one; VIII, 4, do.; VIII, 10, do.; VIII, 11, two; VIII, 26, one.

*Eurema euterpe.*—IX, 7, several; IX, 8, one.

*Eurema nicippe.*—IX, 12, one male; IX, 23, two males.

*Grapta interrogationis.*—VI, 25, two; VI, 27, three; VI, 28, one; VIII, 26, do.; IX, 1, do.; IX, 7, do.

*Grapta interrogationis umbrosia.*—VII, 2, two; VII, 3, do.; VII, 4, three; VII, 6, one; VII, 12, do.; VII, 15, two; VII, 27, one; VIII, 11, do.; VIII, 14, do.

*Hesperia tessellata.*—VII, 14, one.

*Junonia coenia.*—VII, 7, one; VII, 9, do.; VII, 12, do.; VII, 14, three.

*Limenitis archippus.*—VI, 8, one; VI, 10, do.; VII, 13, do.; VII, 14, do.; VII, 15, do.; VII, 24, do.; VII, 27, do.; VIII, 8, several, male and female; VIII, 10, one; VIII, 11, do.; VIII, 17, three; VIII, 31, one; IX, 3, do.; IX, 8, two; IX, 12, one; IX, 18, two; IX, 21, several; IX, 23, one; IX, 26, two

*Lycaena comyntas.*—V, 2, one male; V, 16, three; V, 29, one; VI, 5, do.; VI, 22, several; VI, 23, do.; VI, 24, two; VI, 25, numerous; VI, 25, two; VI, 27, three; VI, 28, several, male and female; VII, 3, numerous; VII, 4, one; VII, 5, two; VII, 6, several, male and female; VII, 7, several; VII, 12, three males; VII, 14, three, male and female; VII, 15, several; VII, 24, three; VII, 27, several; VIII, 1, do.; VIII, 4, do.; VIII, 8, one; VIII, 10, several; VIII, 11, two; VIII, 14, do.; VIII, 17, several; VIII, 19, do.; VIII, 23, three; VIII, 26, two; IX, 1, several; IX, 3, two; IX, 12, do.

*Lycaena pseudargiolus.*—IV, 9, two males; IV, 10, several males; IV, 11, do.; IV, 15, one male; IV, 20, several males; IV, 22, one male; IV, 24, two males; IV, 25, several males; IV, 28, two males; IV, 30, three males; V, 2, two males; V, 7, one; VI, 9, one female; VI, 11, one; VI, 13, three, male and female; VI, 14, several females; VI, 15, two females; VI, 16, three; VI, 21, one; VI, 24, do.

*Melitaea phaeton.*—VI, 15, two; VI, 17, one; VI, 21, do.

*Pamphila egeremet.*—VI, 5, one.

*Pamphila hobomok.*—V, 28, three; V, 29, numerous, male and female; VI, 5, several, male; VI, 6, three, male and female; VI, 8, several males; VI, 10, two, male and female; VI, 11, two females; VI, 14, three; VI, 22, two; VI, 23, one; VIII, 31, one male.

*Pamphila peckius.*—V, 16, one; VI, 2, one female; VI, 6, two; VI, 15, two, male and female, cop.

*Papilio philenor.*—VI, 17, one female; VIII, 11, one.

*Papilio polyxenes.*—V, 16, one male; V, 23, two males; V, 27, three males; V, 28, numerous; V, 29, numerous, male and female; VI, 6, do.; VI, 8, several, male and female; VI, 9, do.; VI, 10, several males; VI, 11, do.; VI, 13, several; VI, 14, several males; VI, 15, numerous, male and female; VI, 16, do.; VI, 17, several, male and female; VI, 18, do; VI, 19, do.; VI, 21, do.; VI, 22, do.; VI, 23, do.; VI, 24, three, male and female; VI, 25, several, male and female; VI, 27, three, male and female; VI, 28, do.; VII, 4, do.; VII, 6, one female; VII, 7, one male; VII, 12, two males; VII, 14, do.; VII, 17, several, male and female; VII, 24, two males; VII, 27, several males; VIII, 1, two males; VIII, 4, three, male and female; VIII, 8, several, male and female; VIII, 10, two males; VIII, 11, numerous, male and female; VIII, 14, one female; VIII, 17, several, male and female; VIII, 19, one female; VIII, 21, several, male and female; VIII, 23, do.; VIII, 26, do.; VIII, 31, two, male and female; IX, 1, do.; IX, 8, three, male and female; IX, 12, one male; IX, 23, two males; IX, 26, one male.

*Papilio troilus.*—V, 10, one male; V, 16, several, male and female; V, 18, one male; V, 22, do.; V, 26, one female; V, 28, three males; V, 29, do.; VI, 2, two males; VI, 9, one male, VI, 23, do.; VI, 28, one; VII, 14, one male; VII, 17, one female; VII, 19, several, male and female; VII, 24, three, male and female; VII, 27, two males; VIII, 4, three males; VIII, 8, two males; VIII, 10, several, males; VIII, 11, several; VIII, 14, one male; VIII, 17, two males; VIII, 19, several; VIII, 23, one; VIII, 26, several; VIII, 31, two; IX, 1, three; IX, 3, two; IX, 7, one; IX, 8, one female.

*Papilio turnus.*—IV, 25, one; IV, 28, do.; V, 2, one female; V, 3, do.; V, 4, do.; V, 7, three; V, 14, one; V, 15, two; V, 16, several; V, 17, one female; V, 21, do.; V, 23, three; V, 27, several males; V, 28, numerous males; V, 29, do.; VI, 1, several, male and female (one black form); VI. 2, several, male and female; VI, 3, several; VI, 4, numerous; VI, 5, several males; VI, 6, several, male and female; VI, 8, several; VI, 9, do.; VI, 10, do.; VI, 11, do.; VI, 13, numerous; VI, 14, do.; VI, 15, two; VI, 16 (one black form), one male; VI, 17, several; VI, 18, two females; VI, 19, two; VI, 21, several; VI, 22, do.; VI, 23, do.; VI, 24, (one black form); VI, 25, two, (one black form); VII, 4, one; VII, 5, do.; VII, 17, do.; VII, 24, do.; VII, 27, two; VIII, 1, do.; VIII, 4, one; VIII, 8, three; VIII, 10, do.; VIII, 11, several, male and female; VIII, 17, three; VIII, 19, several, male and female (two black forms); VIII, 23, three; VIII, 26, several, male and female, (two black forms); VIII, 31, two, male and female, (one black form); IX, 1, do.; IX, 3, one; IX, 7 (one black form); IX, 8, do.

*Phyciodes tharos.*—V, 16, one; V, 28, two; V, 29, do.; VI, 23, do.; VI, 24, one male; VI, 25, three; VI, 27, do.; VI, 28, numerous, male and female; VII, 3, numerous; VII, 4, do.; VII, 5, three; VII, 6, numerous; VII, 7, do.; VII, 12, do.; VII, 14, do.; VII, 15, do.; VII, 24, several; VII, 27, two; VIII, 1, do.; VIII, 10, three; VIII, 11, several; VIII, 17, numerous; VIII, 19, do.; VIII, 21, several; VIII, 23, numerous; VIII, 26, do.; VIII, 31, do.; IX, 1, do.; IX, 3, numerous, male and female, cop.; IX, 7, numerous; IX, 8, do.; IX, 12, do.; IX, 18, do.; IX, 21, several; IX, 23, numerous; IX, 29, do.

*Pieris rapae.*—IV, 10, one; IV, 11, do.; IV, 15, three; IV, 20, two; IV, 22, one; IV, 24, do.; IV. 25, numerous; IV, 26, one; IV, 28, several; IV, 30, numerous; V, 2, several; V, 3, do.; V, 4, one; V, 6, several; V, 7, do.; V. 11, do.; V, 16, do.; V, 27, two; V, 29, one; VI, 5, do.; VI, 10, do.; VI, 13, do.; VI, 15, three; VI, 16, two; VI, 17, do.; VI, 18, one; VI, 23, three; VI, 27, two; VI, 28, three; VII, 12, do.; VII, 14, two; VII, 15, do.; VII, 27, do.; VIII, 1, one; VIII, 4, do.; VIII, 11, do.; VIII, 17, three; VIII, 19, one; VII, 21, one; IX, 12, two; IX, 23, three; IX, 26, two; IX, 29, one.

*Pholisora catullus.*—VII, 7, one; VII, 12, do.; VII, 14, three; VII, 15, do.; VIII, 11, two.

*Polygonia comma comma.*—IV, 11, two, male and female, cop.; IV, 24, two; IV, 25, one; V, 3, two, male and female; VI, 21, one.

*Pyrameis atalanta.*—V, 29, two; VI, 2, one; VI, 5, do.; VI, 8, do.; VI, 9, do.; VI, 10, several; VI, 11, two; VI, 15, one; VI, 17, do; VI, 22, three; VII, 4, two; VII, 27, one; IX, 12, do.; IX, 23, three; IX, 26, two.

*Pyrameis cardui.*—VI, 16, one; VI, 27, do.; VII, 3, do.; VII, 4, do.; VII, 14, two; VIII, 1, one; VIII, 4, two; VIII, 8, one; VIII, 10, two; VIII, 11, one; VIII, 14, two; VIII, 19, three; VIII, 21, two; IX, 3, one; IX, 8, two; IX, 12, do.; IX, 18, three; IX, 21, one; IX, 23, two; IX, 26, one.

*Pyrameis huntera.*—V, 16, two; VI, 8, several; VI, 9, three; VI, 16, one; VI, 21, do.; VI, 22, do.; VII, 17, two; VII, 27, several.

*Satyrus alope.*—VI, 24, two; VI, 25, three; VI, 27, one; VI, 28, several; VII, 3, three; VII, 4, several; VII, 5, do.; VII, 6, several, male and female; VII, 7, several; VII, 12, numerous; VII, 14, several; VII, 15, two; VII, 17, do.; VIII, 4, one female; VIII, 10, two; VIII, 14, one.

*Thanaos juvenalis petronius.*—V, 2, several; V, 3, do.; V, 23, one; VI, 10, two males.

*Vanessa antiopa.*—III, 18, numerous; III, 20, several; III, 26, do.; IV, 2, do.; IV, 9, do.; IV, 11, do.; IV, 15, one; IV, 20, several; IV, 24, three; IV, 25, several; IV, 28, two; IV, 30, do.; V, 2, one; VI, 9, two; VI, 21, one; VI, 25, do.; VI, 28, two; VII, 3, do.; VII, 4, do.; VII, 7, do.; VII, 12, do.; VII, 27, one; VIII, 26, three; IX, 8, one; IX, 12, two; IX, 23, three; IX, 29, do.

## LEPIDOPTERA HETEROCERA.

*Actias luna.*—IV, 25, one female; VII, 28, one male.

*Ampelophaga myron.*—V, 16, one.

*Attacus angulifera.*—V, 9, one female.

*Automeris io.*—VI, 6, two males; VI, 9, one female; VII, 4, do.

*Baptria albovittata.*—V, 22, one; V, 29, do.; VI, 2, several; VI, 5, do.; VI, 9, two; VI, 10, several; VI, 13, two; VI, 14, three; VI, 17, one; VII, 15, two; VII, 24, one; VII, 27, do; VIII, 4, do.

*Carpocapsa pomonella.*—V, 11, one.

*Hemaris thysbe.*—V, 29, one.

*Samia cecropia.*— VI, 4, one female.

*Spilosoma virginica.*—V, 2, one.

*Telea polyphemus.*—V, 14, one; VI, 5, one male; VI, 16, one; VI, 17, two males; VI, 18, one female; VI, 23, one; VII, 10, one female.

*Tinea bisselliella.*—IV, 17, one (seen previous); IV, 19, two; V, 8, one; V, 12, do.; V, 13, do.; V, 14, two; V, 15, several; V, 16, two; V, 17, one; V, 21, do.; V, 22, do.; V, 23, do.; V, 29, do.; V, 30, do.; VI, 3, do.; VI, 4, two; VI, 6, one; VI, 13, two; VI, 21, one; VII, 28, two; VIII, 6, one; VIII, 10, do.

*Utetheisa bella.*—VII, 14, one; VII, 21, two; VIII, 23, one; IX, 3, do.; IX, 12, do.

## HYMENOPTERA.

*Apis mellifica.*—V, 29, numerous; VI, 28, one; VII, 6, two; VII, 7, several; VII, 12, numerous; VII, 14, several; VIII, 1, three; VIII, 10, do.; VIII, 19, several; VIII, 23, one; IX, 7, two; IX, 12, several; IX, 18, numerous; IX, 21, do.; IX, 23, several; IX, 26, do.; IX, 29, three.

*Bombus americanorum.*—V, 28, several; V, 29, two; VI, 5, do.; VI, 9, one; VI, 16, do.; VII, 6, do.; VII, 12, do.; VIII, 23, do.; VIII, 31, two; IX, 1, several; IX, 3, do.

*Bombus pennsylvanicus.*—V, 3, one; V, 11, do.; V, 16, several; V, 17, do.; V, 19, do.; V, 28, numerous; V, 29, several; VI, 2, one; VI, 4, do.; VI, 11, two; VI, 14, one; VI, 16, do.; VIII, 26, do.; IX, 1, several; IX, 3, three; IX, 7, one; IX, 12, three; IX, 18, two; IX, 21, three; IX, 23, do.; IX, 29, two.

*Bombus virginicus.*—IV, 25, three; IV, 26, several; IV, 30, three; V, 2, several; V, 3, one; V, 5, do.; V, 6, several; V, 7, three; V, 14, do.; V, 15, several; V, 16, do.; V, 17, numerous; V, 19, several; V, 28, numerous; V, 29, several; VI, 1, do.; VI, 2, do.; VI, 3, three; VI, 4, do.; VI, 5, several; VI, 6, three; VI, 8, two; VI, 9, three; VI, 10, several; VI, 11, three; VI, 14, several; VI, 15, two; VI, 16, one; VI, 17, do.; VI, 18, do.; VI, 21, three; VI, 22, one; VI, 24, two; VI, 28, one; VII, 6, two; VIII, 4, one; VIII, 10, two; IX, 1, three; IX, 18, one; IX, 21, two; IX, 23, one; IX, 29, two.

*Camponotus herculaneus.*—V, 3, numerous, neuters.

*Camponotus pennsylvanicus.*—IV, 14, 1906, several.

*Cerceris fumipennis.*—VII, 15, two; VII, 24, one.

*Chalybion caeruleum.*—VI, 24, one; VI, 25, do.; VII, 15, do.

*Dolerus bicolor.*—V, 19, one.

*Isodontia tibialis.*—VII, 15, one.

*Monobia quadridens.*—VII, 15, one.

*Myzine sexcincta.*—VII, 15, one; VII, 24, do.

*Pelecinus polyturator.*—IX, 6, three; IX, 7, one; IX, 8, two.

*Polistes metricus.*—IV, 25, three (seen often before); IV, 28, two; IV, 30, one; V, 3, two; V, 7, several; V, 9, do.; V, 11, do.; V, 15, do.; V, 29, three; V, 30, three; VI, 5, one; VI, 10, do.; VI, 16, two; VII, 14, do.; VII, 24, one; VIII, 4, do.; VIII, 10, two; VIII, 14, one; VIII, 17, do.; VIII, 26, three; IX, 1, two.

*Tiphia inornata.*—VI, 5, one.

*Trogus exesorius.*—V, 29, one; VI, 2, three; VI, 5, several; VI, 9, do.; VI, 10, one; VI, 13, several; VI, 14, three; VI, 16, several; VI, 17, do.; VI, 18, one; VI, 23, do.; VI, 25, three; VI, 28, two; VIII, 17, one; VIII, 19, two; VIII, 23, do.; IX, 1, one.

*Vespa germanica.*—V, 2, one; V, 3, two females; V, 6, one; V, 29, three; VI, 3, one; VI, 4, two; VI, 16, three; VI, 17, one; VIII, 10, do.; VIII, 26, several; IX, 1, three.

*Vespa maculata.*—V, 7, three; V, 28, one; VI, 2, two; VI, 6, one; VI, 10, do.; VI, 18, do.; VIII, 4, several VIII, 10, do.; VIII, 23, three; VIII, 26, do.; IX, 1, several.

*Xylocopa virginica.*—V, 3, two; V, 4, one; V, 6, do.; V, 11, several; V, 29, one; V, 30, one; VI, 2, two; VIII, 4, one; VIII, 8, do.; VIII, 10, do.

## ODONATA.

*Anax junius.*—IV, 11, one; V, 28, several; V, 29, do.; VI, 2, do.; VI, 5, several, male and female; VI, 9, several; VI, 10, two, male and female; VI, 15, several, male and female; VI, 16, several; VI, 17, three; VI, 22, several; VI, 23, three, male and female; VII, 3, several, male and female; VII, 4, numerous, male and female; VII, 6, several, male and female; VII, 7, do.; VII, 12, several males; VII, 14, several, male and female; VII, 15, three males; VII, 24, do.; VII, 27, several males; VIII, 1, three males; VIII, 4, one; VIII, 8, several males; VIII, 10, three males; VIII, 11, several; VIII, 23, two; IX, 8, one female.

*Calopteryx maculata.*—V, 28, one male; V, 29, one female; VI, 1, one male; VI, 2, several, male and female; VI, 4, three, male and female; VI, 5, do.; VI, 6, several, male and female; VI, 8, three, male and female; VI, 9, do.; VI, 10, numerous, male and female; VI, 11, several, male and female; VI, 13, two; VI, 14, several, male and female; VI, 15, several males; VI, 16, several, male and female; VI, 17, do.; VI, 18, do.; VI, 19, do.; VI, 22, two males; VI, 25, three, male and female; VI, 27, several; VI, 28, several, male and female, cop.; VII, 3, several, male and female; VII, 6, several males; VII, 7, several, male and female; VII, 15, one male.

*Libellula luctuosa.*—VII, 4, several; VII, 14, one; VII, 15, two; VII, 27, one.

*Libellula pulchella.*—VI, 5, several; VI, 8, two; VI, 9, several, male and female; VI, 13, do.; VI, 14, do.; VI, 15, three, male and female; VI, 16, do.; VI, 17, several, male and female; VI, 19, two males; VI, 22, two; VI, 23, several, male and female; VI, 24, two females; VI, 25, several, male and female; VI, 27, one female; VI, 28, do.; VII, 3 several, male and female; VII, 4, several males; VII, 6, two females; VII, 7, several, male and female; VII, 12, two, male and female; VII, 14, two males; VII, 15, three males; VII, 24, two males;; VII, 27, do.; VIII, 8, one male; VIII, 11, two males.

*Plathemis lydia.*—V, 16, one female; V, 29, several, male and female; VI, 2, one female; VI, 5, several, male and female; VI, 8, do.; VI, 10, three females; VI, 11, do.; VI, 13, several, male and female; VI, 14, do.; VI, 15, three males; VI, 16, several, male and female; VI, 17, two, male and female.. VI, 18, do.; VI, 19, three males; VI, 22, three, male and female; VI, 23, two males; VI, 25, three males; VI, 27, several, male and female; VI, 28, three, male and female; VII, 3, several; VII, 4, several males; VII, 6, two males; VII, 7, several, male and female; VII, 12, several; VII, 14, two, male and female; VII, 15, several, male and female; VII, 24, do.; VII, 27, several males; VIII, 1, two, male and female; VIII, 4, two males; VIII, 10, two females; VIII, 11, two males; VIII, 17, two, male and female.

## HEMIPTERA.

*Cicada tibicen.*—VII, 9, one; VII, 10, do.; VII, 12, do.; VII, 15, several; VIII, 10, do.; VIII, 17, do.; VIII, 19, three; VIII, 26, several; IX, 3, do.

*Euchistus variolarius.*—VII, 3, one.

*Hygrotrechus remegis.*—IV, 10, numerous; IV, 27, do.; V, 28, do.; VI, 9, do.; VI, 14, do.; VIII, 17, several; VIII, 23, numerous; IX, 1, several; IX, 12, do.; IX, 18, do.; IX, 21, do.; IX, 23, three; IX, 26, two.

*Leptopterna dolobrata.*—VI, 10, one; VI, 11, two.

*Nezara hilaris.*—IV, 25, one; VI, 14, do.

*Poeciloptera septentrionalis.*—VI, 25, one.

## DIPTERA.

*Bittacomorpha clavipes.*—V, 4, numerous; V, 5, do.; V, 6, do.; V, 7, do.; V, 28, one; VI, 14, two, male and female, cop.

*Chrysopila thoracica.*—V, 28, one; V, 29, several; VI, 1, three; VI, 2, several; VI, 3, three; VI, 4, one; VI, 6, several; VI, 10, two; VI, 11, one; VI, 13, two; VI, 14, one; VI, 17, do.

*Chrysops niger.*—V, 28, several; V, 29, numerous; VI, 2, do.; VI, 5, do.; VI, 6, do.; VI, 8, three; VI, 9, several; VI, 10, numerous; VI, 11, two; VI, 13, several; VI, 14, numerous; VI, 15, several; VI, 16, numerous; VI, 17, several; VI, 18, do.; VI, 19, numerous; VI, 21, several; VI, 22, do.; VI, 23, do.; VI, 24, numerous; VI, 25, several; VI, 27, do.; VI, 28, do.; VII, 3, numerous; VII, 5, do.; VII, 6, do.; VII, 7, do.; VII, 12, do.; VII, 14, do.; VII, 15, several; VII, 24, do.; VII, 27, one; VIII, 1, do.; VIII, 4, several; VIII, 8, three; VIII, 10, two; VIII, 11, one.

*Eristalis tenax.*—VI, 24, one; VII, 15, do; IX, 18, several; IX, 21, two; IX, 23, three; IX, 26, do.

*Eristalis transversus.*—VII, 15, one; IX, 18, several; IX, 21, one; IX, 23, three; IX, 26, two.

*Musca domestica.*—IV, 27, one; IV, 29, do.; V, 28, several; V, 29, do.; VI, 5, numerous, male and female; VI, 13, several; VI, 14, numerous; VI, 16, several; VI, 18, numerous; VII, 24, do.; VIII, 15, do.; IX, 1, do.; IX, 23, do.; IX, 29, several.

*Simulium innoxium.*—V, 5, numerous; V, 29, several.

*Tabanus lineola.*—VI, 15, one; VII, 15, several.

*Tritoxa flexa.*—VI, 11, two, male and female, cop.; VI, 16, one; VI, 23, two, male and female, cop.; VI, 24, one; VI, 28, do.; VII, 12, do.

## NEUROPTERA.

*Chrysopa oculata.*—VIII, 4, one.

◆

WARNING.—Collectors looking for foreign exchange should be on their guard against certain unscrupulous dealers, who seem to be in business for the purpose of victimizing the unwary. One of the worst offenders of this sort is located at Berlin, Germany and I will cheerfully furnish the name of this shark to anybody so requesting. This is his modus operandi: After carefully scanning the advertiser's list of an entomological publication and having found an ad. to his liking, he then proceeds to send the advertiser an interesting catalogue and card, stating that he can use at least fifty specimens of every species occurring in that locality and offers in exchange, value for value, specimens from all parts of the world. The collector happy in the thought of having found an opportunity for interesting additions, now sends a trial package, but fails to get either exchange or letter in return. After months of patient waiting, during which time he has sent several requests to the dealer for the exchange due him, without even securing the courtesy of a reply, he, (the package having been registered) has recourse to the foreign Post Office to which the package was sent. This office will in due time inform him that the package in question arrived and was promptly delivered to the addressee. This document, may however have been preceded by several days by a letter from the dealer himself, who, having been aroused from his artful slumber by the inquiry to the Postal authorities, now expresses his "allergrösste" surprise at the collector's seeming failure of having received his exchange, which had been sent immediately upon receipt and inspection of the package, but was "not registered." He will add there had never been reported to him a miscarriage of the goods he shipped, notwithstanding the fact that he never registered a package. He will conclude by expressing his satisfaction with the collector's goods and many many regrets. Of course, these suave words are far from consoling the collector, who feels he has been duped. He may now resort to threats of exposure, whereupon the dealer informs him that he has witnesses to the fact that a package containing correct value in foreign specimens, was duly mailed to the collector; however not wishing to have the collector lose all he has mailed him a box of interesting things. This box will eventually be received by the collector and on opening be found to contain a few common diptera, coleoptera and noctuae, which the dealer has no doubt obtained without even leaving his doorsteps or garden.—AUG. KNETZGER, 3822 McDonald Av., St. Louis, Mo.